

*Southern California Edison*  
*2023-WMPs – 2023-WMPs*

**DATA REQUEST SET O E I S - P - W M P \_ 2 0 2 3 - S C E - 0 0 3**

**To: Energy Safety**  
**Prepared by: Jonathan Brownstein**  
**Job Title: Manager**  
**Received Date: 5/11/2023**  
**Response Date: 5/16/2023**

---

**Question 08:**

Regarding SCE's Fast Curve Settings and Customer Reliability:

a. On page 332 of the WMP SCE states:

“When SCE conducted an analysis comparing older Fast Curve settings with newer Fast Curve settings installed since June 2021, we found that Fast Curve installations have not had any significant impact on customer reliability.”

Please provide your data that supports this claim along with an interpretation of the data. This data should include the total number of outages for three years prior to installing Fast Curve on the circuit and the outage totals for each year after Fast Curve was installed. The totals provided should be broken down by circuit. Provide these totals for every circuit that has received Fast Curve capabilities. Please do not send raw data. For any outage data that is removed from the totals, explain what the outage data was and why it was removed.

**Response to Question 08:**

Please see the file titled “*OEIS\_P\_WMP\_2023\_SCE\_003\_DR.xlsx*” which supports the above-quoted statement in SCE's WMP. The data provided reflect unplanned outages<sup>1</sup> at the circuit level that occurred in 2022 on distribution circuits that had Fast Curve settings capability as of 2022, as compared to outages on those same circuits during 2015-2017 timeframe prior to Fast Curve installation. The data is for outages in the June through October timeframe, which is when Fast Curve settings would typically be activated.

Outage data for years 2018-2021 was not used for the analysis, as during these years SCE was expanding deployment of Fast Curve settings to more circuits each year, meaning that many circuits did not have Fast Curve settings capability for the entire relevant time period. To allow for a more complete data set and accurate basis for comparison, SCE compared 2022 unplanned outages on distribution circuits with Fast Curve settings capability with the 2015-2017 outage data for these circuits prior to Fast Curve deployment.

SCE's data shows that installation of Fast Curve settings has not affected reliability, as there has

---

<sup>1</sup> Proactive/planned de-energizations and fuse/transmission/substation outages are excluded from this data set because these types of outages are not relevant to “SCE's Fast Curve Settings.” Fast Curve Settings would not have operated during these types of outages.

been no increase in unplanned outages on Fast Curve-enabled circuits overall in the five years since SCE began deployment of this wildfire mitigation tool, as compared to historical outage data for these circuits.<sup>2</sup> Unplanned outages occur for a variety of reasons (e.g., faults due to animal or vegetation contact) and cannot be causally linked to the operation of fast curve settings. Based on available SCE data, these types of outages would have occurred with or without Fast Curve settings due to hazards beyond SCE's control. The main difference is quicker reaction time to a fault and enhanced public safety. Consequently, the fact that fast curve settings were activated when an outage occurred does not mean that the outage is attributable to the operation of Fast Curve settings. In the WMP regarding lack of "significant impact" refers to a distribution of increase and decrease centered around 0 with no noticeable shift away from a 0 delta.

SCE uses protection settings on protective devices, such as circuit breakers at substations or remote-controlled automatic reclosers on poles, across its entire electric system to maintain the reliability of power and prevent damage to equipment caused by an electrical disruption or fault, such as a metallic balloon getting caught in a power line. Protective devices detect and respond to fault conditions to prevent a potentially more dangerous and uncontrolled reaction. Fast Curve settings reduce the response time of protective devices and turn off power faster when an electrical disruption or fault is detected on SCE's system as compared to normal operating conditions. This difference in response timing further reduces ignition potential and thus wildfire risk.

SCE also provides the following table, which shows circuit performance for 2015-2022 for the 956 circuits that had fast curve capability as of 2022. The average from the 2015-2017 time period (pre-Fast Curve outage data) for these 956 circuits is provided for comparison.

**Outages on 956 Circuits with Fast Curve Have Not Increased Compared to Historical Average<sup>1</sup>**

Category	2015-2017 (Avg)	2018	2019	2020	2021	2022
Outages	781	696	564	708	731	757
Outages per Circuit	0.82	0.73	0.59	0.74	0.76	0.79

---

<sup>2</sup> Most fast curve-enabled circuits have not experienced an increase in outages compared to average historical outage count (2015-2017) prior to implementation of fast curve settings. A majority of these circuits experienced fewer outages. For the remainder, no association between outages and fast curve settings has been established.